

MULTIMEDIA



UNIVERSITY

STUDENT ID NO

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# MULTIMEDIA UNIVERSITY

## FINAL EXAMINATION

TRIMESTER 3, 2016/2017

**TSE2251/TIS2211 -SYSTEMS ANALYSIS AND DESIGN**

(All sections / Groups)

31MAY2017  
2.30 PM-4.30PM  
(2 Hours)

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### INSTRUCTIONS TO STUDENTS

1. This Question paper consists of 4 pages including this cover page.
2. This Question paper contains **SIX** questions of **10** marks each. Answer any **FIVE** questions.
3. The distribution of marks for each question is given.
4. Write all your answers in the Answer Booklet provided.

**Question 1**

- (a) Many different approaches are used to improve the efficiency of the traditional 'System Development Life Cycle (SDLC)' method. Mention SIX such approaches. (3 marks)
- (b) Mention THREE important characteristics of 'Decision Support Systems'. (3 marks)
- (c) What is Agile methodology? Mention THREE key principles associated with Agile methodology. (4 marks)

**Question 2**

- (a) Define the terms: (i) Baseline Project Plan (ii) Statement of Work (3 marks)
- (b) Assume that you have a project with 10 activities labeled 1-10. The time taken for each activity and the predecessors are shown in the following table.

Activity	Time taken (in weeks)	Preceding Activity
1	2	-
2	3	1
3	5	1
4	4	1
5	6	2,3
6	7	3,4
7	8	2,5
8	11	5,6
9	10	7,8
10	2	8,9

- (i) Draw the network diagram. (2 marks)
- (ii) Calculate: (4 marks)
- Earliest completion time (TE) and
  - Latest completion time (TL) for each activity
- (iii) List the activities which are on the critical path. (1 mark)

**Continue...**

**Question 3**

- (a) What is competitive strategy? Mention the three main types of competitive strategy. (3 marks)
- (b) Mention THREE factors that should be considered for a project selection. (3 marks)
- (c)
- (i) Explain the concept of 'time value of money' used in the cost-benefit analysis of a project. (1 mark)
- (ii) Calculate the net present value of three payments of RM1500 each made after 1, 2 and 3 years. Assume the discount rate is 10%. (3 marks)

**Question 4**

- (a) Nominal group technique (NGT) is one of the methods adopted for requirements determination during the analysis phase. Briefly describe the NGT process. (3 marks)
- (b) An individual wishes to withdraw cash from an ATM machine. Draw a decision tree to represent this situation. (3 marks)
- (c) Document analysis is one of the methods used for the determination of system requirements. List any FOUR types of information that can be collected through document analysis. (4marks)

**Question 5**

- (a) What is meant by the term: 'Balancing a data flow diagram'? Give an example for an unbalanced data flow diagram using context and Level-o diagrams. (3 marks)
- (b) Discuss unary, binary, and ternary relationships. Provide an example of each (3 marks)
- (c) What are the conditions to be satisfied for a relation to be in: (4 marks)
- (i) Second Normal Form(2NF) and
- (ii) Third Normal Forms( 3NF)

**Continue...**

**Question 6**

- (a) Mention THREE guide lines for computer dialogue design. (3 marks)
- (b) Alpha test is one of the user acceptance tests which is performed using simulated data.  
Explain THREE types of alpha tests. (3 marks)
- (c) What is configuration management? Explain the terms: (4 marks)
- (i) Baseline modules
  - (ii) System librarian
  - (iii) Build routines

**End of QP**